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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/748,386	12/29/2003	Sang Yub Han	10125/4135	8162

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EXAMINER

SCHECHTER, ANDREW M

ART UNIT PAPER NUMBER

2871

DATE MAILED: 04/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/748,386

Applicant(s)

HAN, SANG YUB

Examiner

Andrew Schechter

Art Unit

2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 March 2005.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-12 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 29 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 3/31/05.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Korea on 17 March 2003. It is noted, however, that applicant has not filed a certified copy of the P2003-16458 application as required by 35 U.S.C. 119(b).

Specification

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 9 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 9 recites "the optical sheet has a partially different thermal expansion coefficient". Different than what? What does "partially different" mean? Is it meant to be "different thermal expansion coefficients along different axes"? For examining purposes it is assumed to refer to the thermal properties of DBEF films discussed by the applicant in the specification. Clarification would be appreciated.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-5, 7, and 8 are rejected under 35 U.S.C. 102(e) as being anticipated by *Kim*, U.S. Patent No. 6,847,417.

Kim '417 discloses [see Figs. 4 and 6, for instance] a liquid crystal display module comprising a main support [540] and an optical sheet [340] secured to the main support through a first securing point [514] close to one corner of a first side [510] of the optical sheet and secured to the main support through a second [524] and third [525] securing points close to corners of a second side [520] of the optical sheet opposing the first side of the optical sheet. Claim 1 is therefore anticipated.

The main support includes protrusions [514, 524, 525] disposed at the securing points, so claim 2 is also anticipated. The optical sheet has holes [342a, 346a, 344a] into which the protrusions are inserted, so claim 3 is also anticipated. The optical sheet has ears [342, 344, 346] provided with the holes and protruding toward an outside of the optical sheet, so claim 4 is also anticipated. There is a guide panel [330] for securing the optical sheets at an upper portion thereof, so claim 5 is also anticipated. There is a

liquid crystal display panel [320] supported by the main support, and a light guide plate [350] and a reflective sheet [360] supported by the main support at a lower portion of the optical sheet, so claim 7 is also anticipated. A number of securing points [1] on the first side of the optical sheet is different from a number [2] of securing points on the second side of the optical sheet, so claim 8 is also anticipated.

7. Claims 1-4 are rejected under 35 U.S.C. 102(b) as being anticipated by *Kim, et al.*, U.S. Patent No. 6,175,396.

Kim '396 discloses [see Figs. 1 and 11, for instance] a liquid crystal display module comprising a main support [1] and an optical sheet [3] secured to the main support through a first securing point [600] close to one corner of a first side of the optical sheet, and secured to the main support through a second and third securing points close to corners of a second side of the optical sheet opposing the first side of the optical sheet [col. 11, lines 20-26 discloses a positioner near each corner]. Claim 1 is therefore anticipated.

There are protrusions [600, etc.], so claim 2 is also anticipated. There are holes [3a] and ears, so claims 3 and 4 are also anticipated.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over *Kim*, U.S. Patent No. 6,847,417 as applied above, in view of *An et al.*, U.S. Patent No. 6,392,724.

Kim does not appear to disclose the guide panel having holes into which the protrusions are inserted. *An* discloses [see Fig. 4] an analogous guide panel [150] having holes [151] into which the analogous protrusions [172] are inserted. It would have been obvious to one of ordinary skill in the art at the time of the invention to have such holes, motivated by *An*'s teaching that with this hole, the protrusion is not affected by the panel guide (so, for instance, all the pieces fit together nicely) [col. 6, lines 45-48]. Claim 6 is therefore unpatentable as well.

10. Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Kim, et al.*, U.S. Patent No. 6,175,396 as applied above, in view of *Okumura*, U.S. Patent No. 6,008,871.

Kim '396 does not appear to disclose that the optical sheet includes a DBEF film. *Okumura* discloses [see Fig. 1] an analogous optical sheet between a backlight [109] and an LCD [105, etc.], where the optical sheet includes a DBEF [108]. It would have been obvious to one of ordinary skill in the art at the time of the invention to include a DBEF in the optical sheet, motivated by the desire to enhance the brightness of the display for a given power usage of the backlight [this is the function of the DBEF]. Claim 10 is therefore unpatentable as well.

As stated by the applicant [paragraph 0025, 0060, etc.], a DBEF sheet has thermal properties satisfying the language "partially different thermal expansion

coefficient" [see above discussion under 35 U.S.C. 112, 2nd paragraph]. Claim 9 is therefore unpatentable as well.

11. Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Kim, et al.*, U.S. Patent No. 6,175,396 as applied above, in view of *Cho*, U.S. Patent No. 6,580,477.

Kim discloses that the positioners can be installed "near the corner of a mold frame" [col. 11, lines 20-26], but does not explicitly disclose being less than 1/10 of the entire length from the corner. Thus, the ranges "near the corner" and "less than 1/10 of the entire length from the corner" are overlapping ranges, in which situation a *prima facie* case of obviousness exists. Further, *Cho* discloses having such holes at the corners [Fig. 4]. It would have been obvious to one of ordinary skill in the art at the time of the invention to place them within 1/10 of the entire length from the corners, motivated by the example of *Cho* that this satisfactorily secures such optical sheets. Claims 11 and 12 are therefore unpatentable.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew Schechter whose telephone number is (571) 272-2302. The examiner can normally be reached on Monday - Friday, 9:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert H. Kim can be reached on (571) 272-2293. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2871

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Andrew Schechter
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14 April 2005